



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2010-0480; Directorate Identifier 2010-NM-035-AD]

RIN 2120-AA64

Airworthiness Directives; The Boeing Company Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Supplemental notice of proposed rulemaking (NPRM); reopening of comment period.

SUMMARY: We are revising an earlier proposed airworthiness directive (AD) for certain The Boeing Company Model 747-400 and 747-400D series airplanes. That NPRM proposed installing aluminum gutter reinforcing brackets to the forward and aft drip shield gutters of the main equipment center (MEC); and adding a reinforcing fiberglass overcoat to the top surface of the MEC drip shield, including an inspection for cracking and holes in the MEC drip shield, and corrective actions if necessary. That NPRM also provided for an option to install an MEC drip shield drain system, which, if accomplished, would extend the compliance time for adding the reinforcing fiberglass overcoat to the top surface of the MEC drip shield. That NPRM was prompted by a report of a multi-power system loss in flight of #1, #2, and #3 alternating current electrical power systems located in the MEC. This action revises that NPRM by revising the locating dimensions of the brackets and changing the routing of the forward drain tubes. We are proposing this supplemental NPRM to prevent water penetration into the MEC, which could result in the loss of flight critical systems. Since these actions impose an additional burden over that proposed in the NPRM, we are reopening the comment period to allow the public the chance to comment on these proposed changes.

DATES: We must receive comments on this supplemental NPRM by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov>. Follow the instructions for submitting comments.
- Fax: 202-493-2251.
- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.
- Hand Delivery: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this AD, contact Boeing Commercial Airplanes, Attention: Data & Services Management, P. O. Box 3707, MC 2H-65, Seattle, Washington 98124-2207; telephone 206-544-5000, extension 1; fax 206-766-5680; e-mail me.boecom@boeing.com; Internet <https://www.myboeingfleet.com>. You may review copies of the referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, Washington. For information on the availability of this material at the FAA, call 425-227-1221.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov>; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the regulatory evaluation, any comments received, and other information. The street address

for the Docket Office (phone: 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Francis Smith, Aerospace Engineer, Cabin Safety and Environmental Systems Branch, ANM-150S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue SW., Renton, Washington 98057-3356; phone: 425-917-6596; fax: 425-917-6590; e-mail: francis.smith@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

We invite you to send any written relevant data, views, or arguments about this proposed AD. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA-2010-0480; Directorate Identifier 2010-NM-035-AD” at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this proposed AD. We will consider all comments received by the closing date and may amend this proposed AD because of those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this proposed AD.

Discussion

We issued an NPRM to amend 14 CFR part 39 to include an AD that would apply to Model 747-400 and 747-400D series airplanes. That NPRM was published in the Federal Register on May 19, 2010 (75 FR 27966). That NPRM proposed to require installing aluminum gutter reinforcing brackets to the forward and aft drip shield gutters of the MEC; and adding a reinforcing fiberglass overcoat to the top surface of the MEC drip shield, including an inspection for cracking and holes in the MEC drip shield, and

corrective actions if necessary. That NPRM also provided for an option to install an MEC drip shield drain system, which, if accomplished, would extend the compliance time for adding the reinforcing fiberglass overcoat to the top surface of the MEC drip shield.

Actions Since Previous NPRM (75 FR 27966, May 19, 2010) Was Issued

Since we issued the previous NPRM (75 FR 27966, May 19, 2010), difficulties were found in accessing areas for repair due to a service bulletin error. We have determined that changing the locating dimensions of support brackets and re-routing the forward drain tubes are necessary due to interference with an existing pitot/static shroud.

Comments

We gave the public the opportunity to comment on the previous NPRM (75 FR 27966, May 19, 2010). The following presents the comments received on the NPRM and the FAA's response to each comment.

Request to Reference Revised Service Information

Boeing requested that we refer to Boeing Alert Service Bulletin 747-25A3555, Revision 1, dated July 27, 2011, which includes steps to take into account an interference issue found during part installation.

We agree to update the references in this supplemental NPRM to Boeing Alert Service Bulletin 747-25A3555, Revision 1, dated July 27, 2011. (The previous NPRM (75 FR 27966, May 19, 2010) refers to Boeing Alert Service Bulletin 747-25A3555, dated November 4, 2009.) Paragraphs (c) and (g) of this supplemental NPRM have been updated to refer to Boeing Alert Service Bulletin 747-25A3555, Revision 1, dated July 27, 2011. Boeing Alert Service Bulletin 747-25A3555, Revision 1, dated July 27, 2011, revises the locating dimensions of the brackets and changes the routing of the forward drain tubes due to difficulties in accessing areas for repair. It also revises the airplane groups.

Request to Remove Parts Installed During Interim Action

Delta Air Lines requested provisions in the previous NPRM (75 FR 27966, May 19, 2010) to electively remove the stanchions, fittings, and tubing installed when doing the interim action, after completing the terminating inspection, repair, and fiberglass overlay reinforcement on the top surface of the drip shields. Delta Air Lines stated that these items add 26 pounds to the weight of the aircraft, and if the interim action is optional, it may be removed once the terminating action is implemented.

We disagree with the request. We have determined that removal of the hardware installed to the MEC area during the interim action poses concerns on the effect on the protection offered by the terminating action (overcoat layer). Removing the hardware could compromise the seals by creating disbonded seams and reopening cracks in the MEC polycarbonate casing, and could result in other damage. Although the interim action is optional, it should be considered a permanent installation once performed. It should be noted that doing both the interim and terminating actions provides two layers of water protection to the MEC, which greatly minimizes the issue of future water contamination. We have discussed this issue with Boeing. No change has been made to the supplemental NPRM in this regard.

Request to Clarify Material Composition of MEC Drip Shield Gutter

Boeing requested that we change the wording of paragraphs (g)(1) and (g)(2)(i) of the previous NPRM (75 FR 27966, May 19, 2010) from “MEC drip shield aluminum gutter” to “aluminum reinforcing brackets on the MEC drip shield gutter” to clarify that the original drip shield gutter is composite material and the reinforcement material is aluminum.

We agree with the request and have changed paragraphs (g)(1) and (g)(2)(i) of this supplemental NPRM accordingly.

Request to Change Parts Costs

Boeing requested that we revise the previous NPRM (75 FR 27966, May 19, 2010) to change the parts costs associated with installing the brackets and adding the overcoat. Boeing stated that the parts costs for the aluminum reinforcing bracket kit is \$2,408 instead of “none” as specified in the previous NPRM. Boeing also stated that the parts costs for the fiberglass reinforcement is \$1,731 (3 panels x \$577/panel) plus the cost of fiberglass, resin, and repair materials for cracks and holes in the drip shield instead of “none” as mentioned in the previous NPRM.

We agree with the request and have changed the “Estimated costs” table of this AD accordingly. However, because the costs for parts required for bracket installation depends on the work package, we have stated the cost as “Up to \$2,408” in the “Estimated costs” table of this supplemental NPRM.

FAA’s Determination

We are proposing this supplemental NPRM because we evaluated all the relevant information and determined the unsafe condition described previously is likely to exist or develop in other products of the same type design. Certain changes described above expand the scope of the original NPRM (75 FR 27966, May 19, 2010). As a result, we have determined that it is necessary to reopen the comment period to provide additional opportunity for the public to comment on this supplemental NPRM.

Proposed Requirements of the Supplemental NPRM

This supplemental NPRM would require accomplishing the actions specified in Boeing Alert Service Bulletin 747-25A3555, Revision 1, dated July 27, 2011, as described previously.

Costs of Compliance

We estimate that this proposed AD affects 71 airplanes of U.S. registry.

We estimate the following costs to comply with this proposed AD:

Estimated costs

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Install Brackets	19 work-hours X \$85 per hour = \$1,615	Up to \$2,408 ¹	Up to \$4,023 ¹	Up to \$285,633 ¹
Add Overcoat	63 work hours X \$85 per hour = \$5,355 (\$577 X 3)	\$1,731	\$7,086	\$503,106
Install Optional MEC Drip Shield Drain System	22 work hours X \$85 per hour = \$1,870	Up to \$8,982 ¹	Up to \$10,852 ¹	Up to \$770,492 ¹

¹Depending on work package.

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. "Subtitle VII: Aviation Programs" describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: "General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

We determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

- (1) Is not a “significant regulatory action” under Executive Order 12866,
- (2) Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979),
- (3) Will not affect intrastate aviation in Alaska, and
- (4) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

- 1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

- 2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

The Boeing Company: Docket No. FAA-2010-0480; Directorate Identifier 2010-NM-035-AD.

(a) Comments Due Date

We must receive comments by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to The Boeing Company Model 747-400 and 747-400D series airplanes; certificated in any category; as identified in Boeing Alert Service Bulletin 747-25A3555, Revision 1, dated July 27, 2011.

(d) Subject

Joint Aircraft System Component (JASC)/Air Transport Association (ATA) of America Code 25, Equipment/Furnishings.

(e) Unsafe Condition

This AD was prompted by a report of a multi-power system loss in flight of #1, #2, and #3 alternating current electrical power systems located in the main equipment center (MEC). We are issuing this AD to prevent water penetration into the MEC, which could result in loss of flight critical systems.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Modification

Do the actions specified in either paragraph (g)(1) or (g)(2) of this AD.

(1) Within 24 months after the effective date of this AD, install aluminum reinforcing brackets on the MEC drip shield gutter, in accordance with Work Package 1 of the Accomplishment Instructions of Boeing Alert Service Bulletin 747-25A3555, Revision 1, dated July 27, 2011; and add a reinforcing fiberglass overcoat to the top surface of the MEC drip shield, including doing a general visual inspection for cracking

and holes in the top surface of the MEC drip shield, and doing all applicable corrective actions, in accordance with Work Package 3 of the Accomplishment Instructions of Boeing Alert Service Bulletin 747-25A3555, Revision 1, dated July 27, 2011. Do all applicable corrective actions before further flight after doing the general visual inspection.

(2) Do the actions specified in paragraphs (g)(2)(i) and (g)(2)(ii) of this AD.

(i) Within 24 months after the effective date of this AD, install aluminum reinforcing brackets on the MEC drip shield gutter, in accordance with Work Package 1 of the Accomplishment Instructions of Boeing Alert Service Bulletin 747-25A3555, Revision 1, dated July 27, 2011; and install a MEC drip shield drain system, in accordance with Work Package 2 of the Accomplishment Instructions of Boeing Alert Service Bulletin 747-25A3555, Revision 1, dated July 27, 2011.

(ii) Within 96 months after the effective date of this AD, add a reinforcing fiberglass overcoat to the top surface of the MEC drip shield, including doing a general visual inspection for cracking and holes in the top surface of the MEC drip shield, and doing all applicable corrective actions, in accordance with Work Package 3 of the Accomplishment Instructions of Boeing Alert Service Bulletin 747-25A3555, Revision 1, dated July 27, 2011. Do all applicable corrective actions before further flight after doing the general visual inspection.

(h) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Seattle Aircraft Certification Office (ACO), FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the ACO, send it to the attention of the person identified in the

Related Information section of this AD. Information may be e-mailed to:

9-ANM-Seattle-ACO-AMOC-Requests@faa.gov.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(i) Related Information

(1) For more information about this AD, contact Francis Smith, Aerospace Engineer, Cabin Safety and Environmental Systems Branch, ANM-150S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue SW., Renton, Washington 98057-3356; phone: 425-917-6596; fax: 425-917-6590; e-mail: francis.smith@faa.gov.

(2) For service information identified in this AD, contact Boeing Commercial Airplanes, Attention: Data & Services Management, P. O. Box 3707, MC 2H-65, Seattle, Washington 98124-2207; telephone 206-544-5000, extension 1; fax 206-766-5680; e-mail me.boecom@boeing.com; Internet <https://www.myboeingfleet.com>. You may review copies of the referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, Washington. For information on the availability of this material at the FAA, call 425-227-1221.

Issued in Renton, Washington, on February 24, 2012.

Ali Bahrami,
Manager,
Transport Airplane Directorate,
Aircraft Certification Service.

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